

Media Release
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‘Bypass extra heart surgery’: study

Surgical ventricular reconstruction after bypass found to be ineffective according to international study published in *New England Journal of Medicine*

Montreal, April 1, 2009 – Treatment options for cardiac patients are likely to change following the largest-ever study to compare the effectiveness of two surgical treatments for heart failure. Published in the *New England Journal of Medicine*, the international study known as the STICH Trial (Surgical Treatment for Ischemic Heart Failure) was coauthored and chaired by Dr. Jean-Lucien Rouleau, dean of the Université de Montréal Faculty of Medicine and a cardiologist-researcher at the Montreal Heart Institute, and the principal investigator was Robert Jones from the Duke Clinical Research Institute.

The STICH Trial recruited 1,000 participants across North America and Europe: 499 patients received a coronary bypass surgery and 501 experienced bypass plus surgical ventricular reconstruction (SVR).

SVR is a procedure where the scarred portion of a damaged heart is folded on itself to get it to beat more effectively. It is estimated that 3,000 to 5,000 SVR procedures have been conducted worldwide in the past 10 years.

As part of the study, physicians monitored participants twice a year for four years. The result? SVR procedures did not reduce death rates, subsequent hospitalization or quality of life. What's more:

- death occurred in 28 percent of the bypass patients and 27 percent of the SVR group;
- hospitalization occurred in 41 percent of bypass patients, compared to 40 percent of the SVR group.

Given that SVR interventions were thought to make the heart smaller and stronger – and how other heart shrinking therapies such as beta-blockers, ACE-inhibitors and cardiac resynchronization are reputed to benefit cardiac patients – results of the STICH trial surprised researchers.

"We have to conclude there is no benefit to adding SVR to patients such as those in the STICH study," says Dr. Rouleau, adding bypass and medication alone may be sufficient to enable the heart to become strong enough for day-to-day activities.

Canadian connection

In Canada, some 154 patients were recruited as part of the STICH Trial from Halifax, Quebec City, Montreal, Hamilton, Toronto, Calgary and Vancouver.

The outcome of the STICH Trial was important, since coronary artery disease is a predominant cause of heart failure, disability and death throughout the world. In Canada alone, 1.5 percent of the general population suffers from heart failure, 21 to 22 percent of men and women over 50 years old may develop heart failure over their lifetime and 75 percent of heart failure in Canada is caused by coronary artery disease.

STICH Trial Investigators are now monitoring 1212 heart failure patients who are only receiving medicine, versus another group receiving medicine and bypass.

Partners in Research:

The study was sponsored by the National Heart, Lung, and Blood Institute (NHLBI) of the National Institutes of Health

On the Web:

About *New England Journal of Medicine*:

<http://content.nejm.org/cgi/reprint/NEJMoa0900559v1.pdf>

About the Montreal Heart Institute <http://www.icm-mhi.org>

About the Université de Montréal: www.umontreal.ca/english/index.htm

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